

LEDVANCE Lamps

LEDlescent™ LED T5HO UL Type B Lamps

Application

LEDVANCE LEDlescent T5 High Output Ballast-Free lamps are an energy saving alternative, designed to replace traditional fluorescent T5HO lamps by bypassing the existing ballast to operate directly on 120-277V. Reduced energy usage saves operational costs resulting in attractive payback time while providing an easy way to upgrade to LED technology. These LED T5HO lamps contain no mercury, provide instant light and a uniform light distribution.

When installing the LEDlescent T5 lamps, the UL rating of the existing fixture is not voided (even when it is electrically modified) since our LEDlescent T5 lamp is UL Classified (as a luminaire conversion retrofit kit) under UL standard 1598C. UL 1598C is the standard covering LED retrofits intended for an existing UL rated fixture. Since the user is retrofitting with a UL1598C classified LED kit, the installer must follow the installation instructions included with the lamps for the modified fixture to retain its UL rating.

Benefits and Features

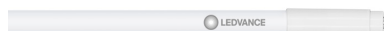
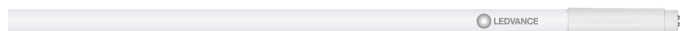
- Efficacy up to 128 LPW
- CRI >80
- No lamp polarity
- No warm-up time, instant-on with full light output and stable lamp-to-lamp color
- Available in 2ft and 4ft lengths
- 3000K, 3500K, 4100K, and 5000K color temperatures
- Beam angle: 180° with frosted glass optics
- Light emitting angle: 320°
- No UV emission
- Suitable for dry and damp locations

Electrical

- Operated directly on 120-277V
- Power Factor >0.9
- THD <20%
- 24W 4ft lamps are dimmable down to 10% with 120V phase cut dimmers

Rated Life

- 50,000 hours (L₇₀)



Wattage Comparison

Traditional Source	Traditional System Wattage	LED System	LED System Wattage	Energy Savings
QHE 2X39T5HO/UNV PSN	53	LED12T5HOL24FG8XXBF	26	51%
QHE 2X54T5HO/UNV PSN	116	LED24T5HOL48FGDIM8XXBFG2	55	53%

Warranty

- Lamps are covered by a 5-year limited warranty. For additional details, please visit www.ledvanceUS.com/warranty
- NLB Trusted Warranty Program

Operating Temperature

- -4°F to +113°F (-20°C to +45°C)

Max Case Temperature

- 158°F (70°C)

Certifications and Listings

- cULus (UL1993, UL598c and CSA22.2)
- RoHS
- FCC
- NSF
- Lead Free
- Mercury Free
- DLC 5.1 for 4ft lamps

Installation

- Please refer to the Installation manual included inside the packaging and the applications information listed below for more information.



Specification Data

Catalog #	Type
Project	
Comments	
Prepared by	

Ordering Guide

LED	XX	T5HO	LXX	FG	DIM	8	XX	BF	G2
Product Name	Wattage	Lamp Type	Length	Color/Finish	Dimming	CRI	Color Temperature	Operation	Generation
LED	12 = 12 Watts 24 = 24 Watts	T5HO	L24 = 24" L48 = 48"	FG = Frosted Glass	DIM = Dimmable	8 = 82	30 = 3000K 35 = 3500K 41 = 4100K 50 = 5000K	BF = UL Type B	G2 = Gen 2

Ordering Information

Item Number	Ordering Abbreviation	Lamp Power (W)	Base Type	Replaces	Input Voltage (V)	Avg. Life (hrs)	Typical Lumens (lm)	CRI	CCT	Power Factor	Bulb Finish	Case Qty	DLC*
41985	LED12T5HOL24FG830BF	12	G5	FP24/830/HO/ECO	120-277V	50,000	1600	82	3000K	>0.90	Frosted Glass	25	—
41986	LED12T5HOL24FG835BF	12	G5	FP24/835/HO/ECO	120-277V	50,000	1600	82	3500K	>0.90	Frosted Glass	25	—
41987	LED12T5HOL24FG841BF	12	G5	FP24/841/HO/ECO	120-277V	50,000	1700	82	4100K	>0.90	Frosted Glass	25	—
41988	LED12T5HOL24FG850BF	12	G5	FP24/850/HO/ECO	120-277V	50,000	1700	82	5000K	>0.90	Frosted Glass	25	—
41989	LED24T5HOL48FGDIM830BFG2	24	G5	FP54/830/HO/ECO	120-277V	50,000	3400	82	3000K	>0.90	Frosted Glass	25	5.1
41990	LED24T5HOL48FGDIM835BFG2	24	G5	FP54/835/HO/ECO	120-277V	50,000	3400	82	3500K	>0.90	Frosted Glass	25	5.1
41991	LED24T5HOL48FGDIM841BFG2	24	G5	FP54/841/HO/ECO	120-277V	50,000	3500	82	4100K	>0.90	Frosted Glass	25	5.1
41992	LED24T5HOL48FGDIM850BFG2	24	G5	FP54/850/HO/ECO	120-277V	50,000	3500	82	5000K	>0.90	Frosted Glass	25	5.1

*There is no DLC category for T5 2-ft lamps.

Specifications & Lighting Data

Lamp	Ballast	Current (AMPS)	System Power (W)	System Lumens (lm)*	System Efficacy (lm/W)	No of Lamps
LED12T5HOL24FG8XXBF	QHE 2X39T5HO/UNV PSN	0.208/0.090	25	3200	128	2
LED24T5HOL48FGDIM8XXBFG2	QHE 2X54T5HO/UNV PSN	0.467/0.202	56	7000	125	2

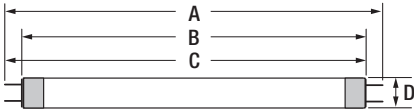
*Lumens at 4100K CCT

Dimmer Compatibility

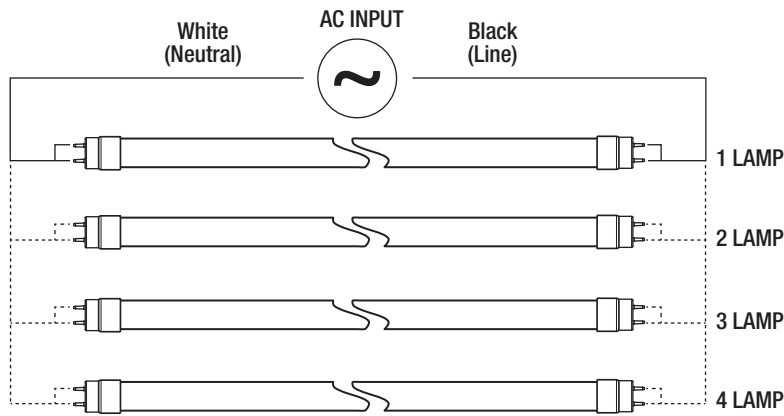
Lamps are dimmable with Lutron CTELV-303P and DVELV-303P 120V phase cut dimmers.

Physical Information

Model	(A) Max. Overall Length (in/mm)	(B) MIN Base Face to Opposite Base Face (in/mm)	(B) MAX Base Face to Base Face (in/mm)	(C) MIN Base Face to Opposite Base Pin (in/mm)	(C) MAX Base Face to Opposite Base Pin (in/mm)	(D) MAX (in/mm)
LED12T5HOL24FG8XXBF	22.17/563.2	21.54/547	21.61/549	21.80/554	21.89/556	0.67/17
LED24T5HOL48FGDIM8XXBFG2	45.80/1163	45.16/1147	45.24/1149	45.42/1153	45.52/1156	0.67/17



Wiring Diagram



Note:

1. LEDlescent™ lamp is polarity neutral. Can be installed in either direction.
2. Socket may be shunted or non-shunted. Tie socket leads together with an external jumper for a non-shunted socket.

Application Information

1. Please read and comply with all instructions before attempting installation.
2. Not suitable for enclosed fixtures (air-tight). Suitable for open fixtures only.
3. Do not use LEDlescent™ T5HO lamps with external LED drivers or ballasts.
4. All installation, inspection, and maintenance of lighting fixtures should be done with the power to the fixture turned off. Lamps should be installed and operated in compliance with the National Electrical Code (NEC), Underwriters Laboratories Inc. (UL) requirements, and all applicable codes and regulations.
5. Please do not install LED lamps and fluorescent lamps in the same fixture.
6. Ensure lamp holders/sockets are in good operating condition before installation.
7. Best practice: cap off the remaining ballast wires should the ballast be left in the fixture after disconnecting.
8. To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects. Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation.
9. When using LEDlescent lamps, to conform to UL, you **MUST** affix the luminaire warning sticker, included inside the packaging, to the fixture during installation.
10. EM ballast that operates with fluorescent ballasts must be disconnected from the lamps.
11. Make sure the lamps have the proper connections before restoring power.
12. Operating temperature range between -4°F and 113°F (-20°C and 45°C).
13. LEDlescent is compatible with Philips Bodine ELI-S-20 Emergency Lighting Inverters and IOTA inverter models IIS-25-I, IIs-35-I, IIS-50-1, IIS125, IIS-375, IIS-550.
14. Suitable for use in dry and damp environments.
15. For detailed warranty information, please see www.ledvanceUS.com.

LEDVANCE LLC
181 Ballardvale Street, Suite 203
Wilmington, MA 01887 USA
Phone 1-800-LIGHTBULB (1-800-544-4828)
www.ledvanceUS.com

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